

What is claimed is:

1 A trough assembly for conveying gobs of formable glass along a downwardly inclined path from an oscillating distributor of an I.S.

5 glass container forming machine, said trough assembly comprising:

a trough member having a configuration, in cross-section, generally corresponding to that of an upwardly facing V with an opposed pair of legs joined, at bottom ends thereof, in a rounded bight, the legs being spaced apart, at upper free ends, by a greater distance than a width of a largest gob in a wide range of gob sizes to be passed through the trough assembly, the bight having a radius smaller than a smallest size of the gobs in the range of gob sizes;

10 a manifold underlying the trough member and extending for a substantial distance along the trough member, the manifold having a configuration, in cross-section, of an upwardly facing U, the trough member being inserted in the manifold partly to a bottom thereof; and

15 means for causing compressed or fan air to flow into the manifold to cool the trough member.

2. A trough assembly according to Claim 1 wherein the trough member has a plurality of apertures extending therethrough, the apertures serving to permit compressed or fan air from the manifold to flow into the trough member to further cool the trough member and to at least partly levitate the gobs of glass flowing therethrough.

3. A trough assembly according to Claim 1 wherein the trough member comprises:

an inlet element for receiving gobs of glass from the oscillating distributor; and

5 an outlet element removably attached to said inlet element for receiving gobs of glass from said inlet element; said inlet element and said outlet element being joined end to end at a juncture;

10 said manifold at least partly underlying each of said inlet element and said outlet element.

4. A gravity method of conveying gobs of formable glass of a size in a wide range of sizes from a source of such gobs to a section of a glass container forming machine, the method comprising:

15 providing a downwardly inclined trough assembly having an upper, gob receiving inlet end and a lower, outlet end, the trough assembly having a configuration generally corresponding to that of an upwardly facing V, the trough assembly further having a manifold at least partly underlying a trough member of the trough assembly, the manifold having a configuration corresponding to an upwardly facing U with the trough member being inserted 20 in the manifold partly to a bottom thereof, the trough member having an opposed pair of legs joined at bottom ends of the legs in a bight, the legs being separated at upper free ends by a distance greater than a width of gobs in a largest size of gobs in the range to be passed through the trough

assembly, the bight having a radius less than a width of gobs in a smallest size of gobs in the range to be passed through the trough assembly, whereby any gob passing liquid coolant flowing through the trough assembly is maintained out of contact with any cooling liquid flowing through the trough member for all gobs of all sizes in the range being conveyed through the trough assembly; and

introducing compressed or fan air into the manifold to at least partly cool the trough member to thereby reduce the coefficient of friction between the trough member and the gobs being conveyed therethrough.

5. The method according to Claim 4 wherein the trough member further has a plurality of apertures extending therethrough to permit compressed or fan air flowing through the manifold to flow into the trough member, thereby to further cool the trough member and at least partly levitate the gobs passing through the trough assembly to further reduce frictional forces acting on the gobs as they pass through the trough assembly.

6. An elongate member for conveying gobs of molten glass from an inlet to such device to an outlet from such device, said member being curved, in a vertical plain that extends parallel to a longitudinal axis of said device, from a higher elevation at the inlet to a lower elevation at the outlet, and being selected from the group consisting of an oscillatable gob scoop for delivering gobs of glass to an inlet of a relatively fixed trough and a relatively fixed trough for receiving gobs of glass from an outlet from an oscillatable scoop, said member having a configuration, in cross-section, generally

corresponding to that of an upwardly facing V with an opposed pair of legs that are joined, at bottom ends thereof, in a rounded bight, the leg being spaced apart, at upper free ends by a distance greater than a width of the largest gob in a wide range of gob sizes to be passed through the elongate member, the bight having a radius smaller than that of a smallest size of the gobs in the range of gob sizes.

7. An elongate member according to claim 6 and further comprising:

a manifold underlying said curved member, said manifold having a passage through which a coolant may be circulated to cool gob-contacting surfaces of the legs of said member.

8. An elongate member according to claim 7 and further comprising a plurality of small apertures extending through the legs of said elongate member, said apertures serving to convey a gaseous coolant from said manifold through the legs of said elongate member.

9. An elongate member according to claim 6 wherein said elongate member is an oscillatable scoop, said oscillatable scoop having a gob contacting surface that is smooth and uncoated and further comprising:

means for indirectly cooling said gob contacting surface.

10. An elongate member according to claim 9 wherein said means for indirectly cooling said gob contacting surface comprises:

means underlying said scoop for circulating a liquid coolant through said scoop in indirect contact with said gob contacting surface.

11. An elongate member according to claim 9 wherein said means underlying said scoop for circulating a coolant in indirect contact with said contacting surface comprises means for circulating a gaseous coolant through said scoop.

12. An elongate member according to claim 11 and further comprising:

10 a plurality of apertures in said gob scoop for allowing a gaseous coolant passing into said means underlying said scoop to thereafter pass into said scoop in direct cooling contact with glass gobs passing through said scoop.

13. An elongate member according to claim 9 wherein said gob contacting surface has a surface finish of at least 10 RMS.

14. An elongate member according to claim 9 wherein said member has a radius near its inlet, along the longitudinal axis, that is substantially smaller than a radius, near its outlet, along the longitudinal axis, a final portion of the elongate member, immediately inward of the outlet, being straight.